

## EAST SEARCH

4/11/04

L#	Hits	Search String	Databases
L1	6	(("6629312") or ("6457173") or ("6490716")).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L2	1	5355491.PN.	USPAT
L3	1	6226776.PN.	USPAT
L4	1	6292938.PN.	USPAT
L5	1	6463582.PN.	USPAT
L6	1	6226776.PN.	USPAT
L7	1	6279100.PN.	USPAT
L8	5	(vliw or (very adj long adj instruction)) same (mutual\$4 and exclusiv\$5) (vliw or (very adj long adj instruction)) and (mutual\$4 and exclusiv\$5) and parallel\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
L9	148		USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

Results of search set L8:

US 6604188 B1 Pipeline replay support for multi-cycle operations wherein all VLIW instructions  
US 6457173 B1 are flushed upon detection of a multi-cycle atom operation in a VLIW instruction  
Automatic design of VLIW instruction formats  
US 5974537 A Guard bits in a VLIW instruction control routing of operations to functional units  
US 5333280 A allowing two issue slots to specify the same functional unit  
Parallel pipelined instruction processing system for very long instruction word  
JP 2001306321 A Processor of very long instruction word system, has primary and secondary  
conditions which are not mutually exclusive relationships

20030805 712/24  
20020924 717/149  
19991026 712/215  
19940726 712/241  
20011102

Results of search set L9:

US 6702417 B2 Printing cartridge with capacitive sensor identification  
US 6697076 B1 Method and apparatus for address re-mapping  
US 6693643 B1 Method and apparatus for color space conversion  
US 6675286 B1 Multimedia instruction set for wide data paths  
US 6665454 B1 Dot adjacency compensation in optical storage systems using ink dots  
US 6651222 B2 Automatic design of VLIW processors  
US 6644771 B1 Printing cartridge with radio frequency identification  
US 6643745 B1 Method and apparatus for prefetching data into cache

20040309 347/19  
20040224 345/568  
20040217 345/602  
20040106 712/215  
20031216 382/299  
20031118 716/1  
20031111 347/19  
20031104 711/138

US 6636216 B1	Digital image warping system	20031021	345/427
US 6631514 B1	Emulation system that uses dynamic binary translation and permits the safe speculation of trapping operations	20031007	717/137
US 6629312 B1	Programmatic synthesis of a machine description for retargeting a compiler	20030930	717/136
US 6629001 B1	Configurable controller for audio channels	20030930	700/94
US 6618117 B2	Image sensing apparatus including a microcontroller	20030909	355/18
US 6607888 B2	Method for analyzing nucleic acid reactions	20030819	435/6
US 6604188 B1	Pipeline replay support for multi-cycle operations wherein all VLIW instructions are flushed upon detection of a multi-cycle atom operation in a VLIW instruction	20030805	712/24
US 6588009 B1	Method and apparatus for compiling source code using symbolic execution	20030701	717/161
US 6587058 B1	Processing circuit and method for variable-length coding and decoding	20030701	341/67
US 6581191 B1	Hardware debugging in a hardware description language	20030617	716/4
US 6581187 B2	Automatic design of VLIW processors	20030617	716/1
US 6573846 B1	Method and apparatus for variable length decoding and encoding of video streams	20030603	341/67
US 6565181 B2	Printing cartridge with switch array identification	20030520	347/19
US 6549930 B1	Method for scheduling threads in a multithreaded processor	20030415	718/104
US 6547364 B2	Printing cartridge with an integrated circuit device	20030415	347/19
US 6542845 B1	Adaptive tracking of dots in optical storage system using ink dots	20030401	382/254
US 6539543 B1	Method and apparatus for compiling source code by flattening hierarchies	20030325	717/161
US 6507947 B1	Programmatic synthesis of processor element arrays	20030114	717/160
US 6507293 B2	Processing circuit and method for variable-length coding and decoding	20030114	341/67
US 6496919 B1	Data processor	20021217	712/24
US 6490716 B1	Automated design of processor instruction units	20021203	716/18
US 6476863 B1	Image transformation means including user interface	20021105	348/231.9
US 6459495 B1	Dot center tracking in optical storage systems using ink dots	20021001	358/520
US 6457173 B1	Automatic design of VLIW instruction formats	20020924	717/149
US 6457073 B2	Methods and apparatus for providing data transfer control	20020924	710/22
US 6445316 B1	Universal impedance control for wide range loaded signals	20020903	341/120
US 6442525 B1	System for authenticating physical objects	20020827	705/1
US 6438747 B1	Programmatic iteration scheduling for parallel processors	20020820	717/160
US 6431669 B1	Method and apparatus for information storage in a portable print roll	20020813	347/2
US 6416154 B1	Printing cartridge with two dimensional code identification	20020709	347/19
US 6415054 B1	Target detection for dot region alignment in optical storage systems using ink dots	20020702	382/233
US 6408428 B1	Automated design of processor systems using feedback from internal measurements of candidate systems	20020618	716/17
US 6397242 B1	Virtualization system including a virtual machine monitor for a computer with a segmented architecture	20020528	718/1
US 6385757 B1	Auto design of VLIW processors	20020507	716/1

US 6380758 B1	Impedance control for wide range loaded signals using distributed methodology	20020430	326/30
US 6374403 B1	Programmatic method for reducing cost of control in parallel processes	20020416	717/161
US 6374346 B1	Processor with conditional execution of every instruction	20020416	712/221
US 6362869 B1	Authentication system for camera print rolls	20020326	355/18
US 6362868 B1	Print media roll and ink replaceable cartridge	20020326	355/18
US 6356715 B1	Prints remaining indicating for camera with variable length print capability	20020312	396/284
US 6356105 B1	Impedance control system for a center tapped termination bus	20020312	326/30
US 6351760 B1	Division unit in a processor using a piece-wise quadratic approximation technique	20020226	708/654
US 6321322 B1	Methods and apparatus for scalable instruction set architecture with dynamic compact instructions	20011120	712/24
US 6317192 B1	Utilization of image tiling effects in photographs	20011113	355/18
US 6315200 B1	Encoded data card reading system	20011113	235/454
US 6314511 B1	Mechanism for freeing registers on processors that perform dynamic out-of-order execution of instructions using renaming registers	20011106	712/217
US 6298370 B1	Computer operating process allocating tasks between first and second processors at run time based upon current processor load	20011002	718/102
US 6282708 B1	Method and processor for structuring a multi-instruction computer program in an internal directed acyclic graph	20010828	717/156
US 6282632 B1	Information processor having duplicate operation flags	20010828	712/42
US 6260082 B1	Methods and apparatus for providing data transfer control	20010710	710/22
US 6221592 B1	Computer-based methods and systems for sequencing of individual nucleic acid molecules	20010424	435/6
US 6217165 B1	Ink and media cartridge with axial ink chambers	20010417	347/86
US 6202143 B1	System for fetching unit instructions and multi instructions from memories of different bit widths and converting unit instructions to multi instructions by adding NOP instructions	20010313	712/210
US 6195748 B1	Apparatus for sampling instruction execution information in a processor pipeline	20010227	712/227
US 6182203 B1	Microprocessor	20010130	712/22
US 6179489 B1	Devices, methods, systems and software products for coordination of computer main microprocessor and second microprocessor coupled thereto	20010130	718/102
US 6163840 A	Method and apparatus for sampling multiple potentially concurrent instructions in a processor pipeline	20001219	712/227
US 6148396 A	Apparatus for sampling path history in a processor pipeline	20001114	712/227
US 6119075 A	Method for estimating statistics of properties of interactions processed by a processor pipeline	20000912	702/186
US 6112298 A	Method for managing an instruction execution pipeline during debugging of a data processing system	20000829	712/227

US 6105119 A	Data transfer circuitry, DSP wrapper circuitry and improved processor devices, methods and systems	20000815	711/219
US 6092184 A	Parallel processing of pipelined instructions having register dependencies	20000718	712/218
US 6092180 A	Method for measuring latencies by randomly selected sampling of the instructions while the instruction are executed	20000718	712/200
US 6081885 A	Method and apparatus for halting a processor and providing state visibility on a pipeline phase basis	20000627	712/227
US 6070009 A	Method for estimating execution rates of program execution paths	20000530	717/130
US 6065106 A	Resuming normal execution by restoring without refetching instructions in multi-word instruction register interrupted by debug instructions loading and processing	20000516	712/24
US 6055649 A	Processor test port with scan chains and data streaming	20000425	714/30
US 6023757 A	Data processor	20000208	712/209
US 6016555 A	Non-intrusive software breakpoints in a processor instruction execution pipeline	20000118	714/35
US 6000044 A	Apparatus for randomly sampling instructions in a processor pipeline	19991207	714/47
US 5983336 A	Method and apparatus for packing and unpacking wide instruction word using pointers and masks to shift word syllables to designated execution units groups	19991109	712/24
US 5974537 A	Guard bits in a VLIW instruction control routing of operations to functional units allowing two issue slots to specify the same functional unit	19991026	712/215
US 5970241 A	Maintaining synchronism between a processor pipeline and subsystem pipelines during debugging of a data processing system	19991019	712/227
US 5968160 A	Method and apparatus for processing data in multiple modes in accordance with parallelism of program by using cache memory	19991019	712/14
US 5964867 A	Method for inserting memory prefetch operations based on measured latencies in a program optimizer	19991012	712/219
US 5949994 A	Dedicated context-cycling computer with timed context	19990907	712/228
US 5949439 A	Computing apparatus and operating method using software queues to improve graphics performance	19990907	345/503
US 5924117 A	Multi-ported and interleaved cache memory supporting multiple simultaneous accesses thereto	19990713	711/127
US 5923872 A	Apparatus for sampling instruction operand or result values in a processor pipeline	19990713	712/244
US 5923871 A	Multifunctional execution unit having independently operable adder and multiplier	19990713	712/221
US 5909559 A	Bus bridge device including data bus of first width for a first processor, memory controller, arbiter circuit and second processor having a different second data width	19990601	710/307
US 5890217 A	Coherence apparatus for cache of multiprocessor	19990330	711/141
US 5883640 A	Computing apparatus and operating method using string caching to improve graphics performance	19990316	345/503

US 5809450 A	Method for estimating statistics of properties of instructions processed by a processor pipeline	19980915	702/186
US 5790874 A	Information processing apparatus for reducing power consumption by minimizing hamming distance between consecutive instruction	19980804	713/320
US 5787026 A	Method and apparatus for providing memory access in a processor pipeline	19980728	708/521
US 5784630 A	Method and apparatus for processing data in multiple modes in accordance with parallelism of program by using cache memory	19980721	712/30
US 5764951 A	Methods for automatically pipelining loops	19980609	716/1
US 5764943 A	Data path circuitry for processor having multiple instruction pipelines	19980609	712/218
US 5699460 A	Image compression coprocessor with data flow control and multiple processing units	19971216	382/307
US 5682491 A	Selective processing and routing of results among processors controlled by decoding instructions using mask value derived from instruction tag and processor identifier	19971028	712/209
US 5471593 A	Computer processor with an efficient means of executing many instructions simultaneously	19951128	712/235
US 5450556 A	VLIW processor which uses path information generated by a branch control unit to inhibit operations which are not on a correct path	19950912	712/235
US 5442760 A	Decoded instruction cache architecture with each instruction field in multiple-instruction cache line directly connected to specific functional unit	19950815	712/215
US 5333280 A	Parallel pipelined instruction processing system for very long instruction word	19940726	712/241
US 5329630 A	System and method using double-buffer preview mode	19940712	711/173
US 5056015 A	Architectures for serial or parallel loading of writable control store	19911008	703/27
US 4873630 A	Scientific processor to support a host processor referencing common memory	19891010	712/3
US 20040065738 A1	Data distribution mechanism in the form of ink dots on cards	20040408	235/454
US 20040061734 A1	Printing device for use with a printing cartridge having capacitive sensor identification	20040401	347/19
US 20040056105 A1	Data structure encoded on a surface of an object	20040325	235/494
US 20040051753 A1	Method of identifying printing cartridge characteristics with capacitive sensors	20040318	347/19
US 20040041018 A1	Card having coded data and visible information, for operating a device	20040304	235/375
US 20040030873 A1	Single chip multiprocessing microprocessor having synchronization register file	20040212	712/245
US 20040015931 A1	Methods and apparatus for automated generation of abbreviated instruction set and configurable processor architecture	20040122	717/158
US 20040015773 A1	High speed arithmetic operations for use in turbo decoders	20040122	714/786
US 20040008327 A1	Image printing apparatus including a microcontroller	20040115	355/18
US 20040008262 A1	Utilization of color transformation effects in photographs	20040115	348/207.2
US 20040008261 A1	Print roll for use in a camera imaging system	20040115	348/207.2
US 20040004698 A1	Programmable camera system with software interpreter	20040108	355/18

US 20040004651 A1	Printing cartridge with a data-carrying integrated circuit device	20040108	347/86
US 20040004129 A1	Identifying card	20040108	235/487
US 20030233642 A1	System and method for assigning basic blocks to computer control flow paths	20031218	717/156
US 20030233641 A1	System and method for merging control flow paths	20031218	717/156
US 20030200420 A1	Methods and apparatus for scalable instruction set architecture with dynamic compact instructions	20031023	712/209
US 20030126404 A1	Data processing system, array-type processor, data processor, and information storage medium	20030703	712/15
US 20030120996 A1	High speed add-compare-select operations for use in viterbi decoders	20030626	714/795
US 20030117496 A1	Preprinted print rolls for postal use in an image processing device	20030626	348/207.2
US 20030112419 A1	Printing cartridge with barcode identification	20030619	355/18
US 20030079065 A1	Methods and apparatus for providing data transfer control	20030424	710/22
US 20030068185 A1	Printing cartridge with switch array identification	20030410	400/613
US 20030066061 A1	Method and apparatus for performing compiler transformation of software code using fastforward regions and value specialization	20030403	717/158
US 20030065911 A1	Data processor	20030403	712/227
US 20030056088 A1	Processor, compiler and compilation method	20030320	712/214
US 20030041163 A1	Data processing architectures	20030227	709/232
US 20030033441 A1	HIGHLY COMPONENTIZED SYSTEM ARCHITECTURE WITH A DEMAND-LOADING NAMESPACE AND PROGRAMMING MODEL	20030213	719/315
US 20020144101 A1	Caching DAG traces	20021003	712/240
US 20020133784 A1	Automatic design of VLIW processors	20020919	716/1
US 20020120914 A1	Automatic design of VLIW processors	20020829	716/17
US 20020083308 A1	Data processing device with a configurable functional unit	20020627	712/226
US 20020080335 A1	Printing cartridge with capacitive sensor identification	20020627	355/18
US 20020073299 A1	Methods and apparatus for scalable instruction set architecture with dynamic compact instructions	20020613	712/24
US 20020071104 A1	Image sensing apparatus including a microcontroller	20020613	355/18
US 20020061523 A1	Method for analyzing nucleic acid reactions	20020523	435/6
US 20020033854 A1	Printing cartridge with pressure sensor array identification	20020321	347/17
US 20020030713 A1	Printing cartridge with two dimensional code identification	20020314	347/19
US 20020030712 A1	Printing cartridge with an integrated circuit device	20020314	347/19
US 20020011943 A1	Processing circuit and method for variable-length coding and decoding	20020131	341/67
US 20020010814 A1	Methods and apparatus for providing data transfer control	20020124	710/22
US 20010004755 A1	MECHANISM FOR FREEING REGISTERS ON PROCESSORS THAT PERFORM DYNAMIC OUT-OF-ORDER EXECUTION OF INSTRUCTIONS USING RENAMING REGISTERS	20010621	712/217